

### TYPE 2 BAR

### STEEL SCHEDULE

#5 BARS, TOTAL LENGTH	#4 BARS, TOTAL LENGTH	L1 4 STR 4'	L 4 2 2'-0" 9" 2'	D 4 STR 4'	C 5 $2 2'-0"$ $1'-0"$ $3'$	B 4 STR	A 4 STR 4'	MARK SIZE QUAN TYPE R S LEN	
LENGTH	LENGTH	4'-9"	2'-9"	4'-9"	3'-0"		4'-6"	LENGTH	
								TOTAL LENGTH	

ESTIMATED QUANTITIES

CU.

YDS.

	4	4	4	5	4	4	SIZE	
							K SIZE QUAN TYPE	
#4	STR	2	STR	2	STR	STR	TYPE	0
BARS,		2'-0"	1	2'-0"			R	31666 30160066
TOTAL		9"		2'-0" 1'-0" 3'-0"	-		S	
#4 BARS, TOTAL LENGTH	4'-9"	2'-9"	4'-9"	3'-0"		4'-6"	LENGTH	
							TOTAL LENGTH	
STEEL QUAN	· MINIMUM SF	• CONCRETE W		STEEL	STEEL #5	SIEEL #4	CONCRETE	

(3.60 FT./LIN.FT.) (25.0 FT./LIN. FT.) (0.27 CU.YDS./LIN.FT.)

(42.5 FT./CORNER)

 $\Box$  $\Box$ 

- IGRETE WILL MEET PA 313 OR 561 SPECIFICATION REQUIREMENTS. IMUM SPLICE LENGTH FOR ALL #4 BARS IS 16".
  IMUM SPLICE LENGTH FOR ALL #5 BARS IS 17".
  IEL QUANTITY DOES NOT INCLUDE SPLICE LENGTHS.
  3STITUTION OF GRADE 60 BARS IS PERMITTED.

TOTAL LENGTH OF WALL

FOR FROST PROTECTION, A 2-FOOT BACKFILL IS RECOMMENDED. DIMENSIONS ARE TO THE REINFORCING BAR SURFACE.

# WATERSTOP

## LIQUID-TIGHT JOINT OPTIONS

LIQUID-TIGHT JOINT

YES

8

C.J. = CONSTRUCTION JOINT

HYDROPHILIC WATERSTOP

NON-METALIC WATERSTOP (PVC)

IF SLAB AND WALL ARE POURED SEPARATELY, THE SLAB SURFACE MUST BE THOROUGHLY CLEANED WITH WATER AND A WIRE BRUSH. THE SURFACE OF THE JOINT SHALL BE KEPT MOIST FOR AT LEAST 1 HOUR PRIOR TO

CONSTRUCTION

JOINT OPTIONS

Date

<u>06/23/0</u>5

1 THE SLAB AND WALL MAY BE POURED AT THE SAME TIME ELIMINATING THE NEED FOR A PLACEMENT OF NEW CONCRETE.

TJA

5-FOOT WALL SLAB CORNER DETAILS RESTRAINING SLAB OPTIONS CORNER DETAILS SEE PA-026A SEE PA-023 SEE PA-024

PA-026A

CONSTRUCTION

## GENERAL DESIGN NOTES

DRAINAGE SHALL BE AWAY FROM THE WALL

\*THE MINIMUM TOP WIDTH OF THE BACKFILL AGAINST THE OR GREATER THAN THE BACKFILL HEIGHT. WALL SHALL BE EQUAL TO

MAXIMUM FOOTING CONTACT PRESSURE IS 800 psf/ft.

DESIGN STRENGTHS: WORKING STRESS DESIGN

CONCRETE  $f_c = 4,000 \text{ psi}$ STEEL  $f_s = 20,000 \text{ psi}$  (GRADE 40)

WALL DESIGN LOADING: 313 STANDARD SEE SECTION IV OF THE FIELD - LATERAL EARTH PRESSURE VALUES, OFFICE TECHNICAL GUIDE

\*MANURE LOAD INSIDE = 65 psf/ft.
\*SOIL BACKFILL LOAD OUTSIDE = 60 psf/ft. AND 85
\*NO HORIZONTAL SURCHARGE ADDED. psf,

\*WATER TABLE MUST BE BELOW \*NO HORIZUNIAL JOING....

\*SOIL BACKFILL DENSITY = 110 pcf. FOOTING ELEVATION

# WALL RESTRAINT REQUIREMENTS:

THICK SLAB, SAFETY FACTOR AGAINST SLIDING 1.5

4 FEET **		0 FEET
4 FEET **	NO SLAB	1 F00T
4 FEET **	NO SLAB	2 FEET
NO SLAB	NO SLAB	3 FEET
NO SLAB	14 FEET	4 FEET
NO SLAB	31 FEET	5 FEET
SLAB LENGTH FULL INSIDE LOAD	SLAB LENGTH NO INSIDE LOAD	(OUTSIDE LOAD)

\*\* MINIMUM SLAB LENGTH OF 4 FEET REQUIRED AND MUS-<u>Ш</u> NTO THE WALL FOOTING.

SLAB POURED WITH WALL FOOTING:

#3 BARS @ 18" SPACING (MINIMUM REINFORCEMENT)

SLAB NOT POURED WITH WALL FOOTING:

#3 DOWEL BARS — 3'—0" LENGTH @ 2'—0" SPACING.

THIS STANDARDIZED DESIGN MUST BE ADAPTED TO THE SPECIFIC SITE. WITH THE WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE AND CONSULS FILED AT THE NRCS STATE OFFICE, 8030 EXCELSIOR DRIVE, MADISON UMER PROTECTION. THE DESIGN FOLDER WI. 53717-2906

ADAPTED FROM WI-552, APRIL 2005)

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COUNTY, PENNSYLVANIA

5' HIGH, 8" THICK T-WALL (W/O SURCHARGE)